

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS**

SINGULAR COMPUTING LLC,

Plaintiff,

v.

GOOGLE LLC,

Defendant.

C.A. No. 1:19-cv-12551-FDS

Hon. F. Dennis Saylor IV

**DEFENDANT GOOGLE LLC'S
MOTION *IN LIMINE* REGARDING CLOSING ARGUMENT**

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Google brings this motion to preclude Singular from (1) referencing Dr. Bates and Astro Teller’s 2010–2011 communications about Dr. Bates’ intellectual property, including the 2010 NDA, or (2) suggesting that Dr. Bates invented *bfloat16* or that the use of the *bfloat16* format, by itself, infringes either asserted claim during closing argument. As the evidence adduced at trial has confirmed, the 2010–2011 communications about Dr. Bates’ intellectual property are irrelevant as there is no claim in this case that turns on whether any contract, NDA, or promise was breached. In addition, despite Singular’s stipulation that it would not offer any evidence or argument suggesting that Dr. Bates invented *bfloat16* or that the use of the *bfloat16* format, by itself, infringes either asserted claim, its conduct in this case has created a substantial risk that the jury will think that use of the *bfloat16* format, by itself, infringes the asserted claims or that Dr. Bates should be credited with coming up with that number format.

I. SINGULAR SHOULD NOT BE PERMITTED TO REFER IN ITS CLOSING TO DR. BATES AND GOOGLE’S 2010–2011 CONVERSATIONS ABOUT DR. BATES’ INTELLECTUAL PROPERTY OR THE 2010 NDA.

During the trial, Singular has offered argument, elicited testimony, and introduced evidence about 2010–2011 discussions between Google and Dr. Bates about Dr. Bates’ intellectual property. These discussions primarily involved Dr. Bates and Astro Teller, of Google X, and included conversations about an NDA executed in 2011.¹ For example:

- In Singular’s opening statement, Singular argued that in 2011, when Google and Dr. Bates “couldn’t reach a deal on how to handle [Singular’s] patents,” Dr. Teller told Dr. Bates that “Google isn’t going to do this if we don’t do it without [sic] you, but the lawyers here will not let me say certain things, so nothing in writing.” Day 2 Trial Tr. at 33:23–34:2.
- Singular further argued that in 2011, “Google Legal” prevented Dr. Teller from “promis[ing] certain things” to Dr. Bates, and that Dr. Teller

¹ To be clear, Google does *not* move to exclude conversations about the NDA the parties discussed in 2017. See TX 28.

encouraged Dr. Bates to “go forward with a gentlemen’s understanding . . . basically trust us.” *Id.* at 34:3–7.

- During Dr. Bates’ direct examination, Singular introduced a 2010 email from Dr. Teller to Dr. Bates describing various options for collaboration given Dr. Bates’ concerns about intellectual property. *See* TX 846. Singular also introduced an NDA between Singular and Google that was executed in 2011 (effective in November 2010), and an email from Dr. Teller to Dr. Bates stating that “Google isn’t going to do this if we don’t do it with you.” TX 261; TX 911.
- Dr. Bates testified that the parties signed an NDA in 2011, and that Google X told him it “would not . . . pursue the technology that [he was] advocating,” if Dr. Bates and Google X could not reach a “business deal.” Day 2 Trial Tr. at 126:22–24; *id.* 134:5–9; *see id.* 135:16–21.

Singular argued at the outset of the trial that this argument, evidence, and testimony would support its claim for willful infringement. *See* Dkt. No. 652; Day 2 Trial Tr. at 17:2–5. Despite Singular’s representations, the trial record makes clear that the parties’ 2010–2011 interactions have no bearing on that allegation or any other relevant issue. Singular should not be permitted to reference these interactions in its closing, because such references would be prejudicial to Google, and lack any probative value.

First, the evidence adduced at trial has made clear that the 2010–2011 conversations between Dr. Teller and Dr. Bates, including the parties’ 2010 NDA, are not relevant to any issue of consequence. *See* Fed. R. Evid. 401, 402. Singular has no cause of action that Google violated its 2010 NDA with Dr. Bates, nor does it allege that Google misappropriated any trade secrets. And there are no other claims arising from Google’s alleged promises to Dr. Bates that would make these interactions relevant.

At the outset of trial, Singular justified the introduction of this evidence as relevant to willfulness, and particularly to Google’s knowledge of “whether there were patents or not.” Day 2 Trial Tr. at 17:2–5. But the trial record now establishes that this pretense does not hold water. Dr. Bates’ conversations with Dr. Teller occurred in 2010 and 2011—**two years** before the first

asserted patent issued in March 2013, and *four years* before the second asserted patent issued in December 2015. *See* TX 1 ('156 patent); TX 2 ('273 patent). Interactions that predate issuance of Singular's patents have no bearing on whether Google knew of those not-yet-existent patents. *See State Indus., Inc. v. A.O. Smith Corp.*, 751 F.2d 1226, 1236 (Fed. Cir. 1985) ("To willfully infringe a patent, the patent must exist and one must have knowledge of it."); *Gustafson, Inc. v. Intersystems Indus. Prods., Inc.*, 897 F.2d 508, 510 (Fed. Cir. 1990) ("It is obvious that a party cannot be held liable for 'infringement,' and thus not for 'willful' infringement, of a nonexistent patent."); *MasterObjects, Inc. v. Google, Inc.*, No. C 11-1054 PJH, 2013 WL 12177460, at *3 (N.D. Cal. May 2, 2013) (denying motion for leave to amend to add willfulness allegations based on pre-issuance correspondence "because if there was no valid patent, there can be no willful infringement"); *Smith & Nephew, Inc. v. Interlace Med., Inc.*, No. 10-10951, 2012 WL 3560811, at *2 (D. Mass. Aug. 17, 2012) (granting motion *in limine* and noting that "[c]onduct before the patent issues is not willfulness"). And Singular has offered no evidence at trial that these pre-issuance conversations between Dr. Bates and Dr. Teller about a business relationship somehow evidence "copying" or other "particularly egregious behavior," which might make them relevant to willfulness despite that they predate the patent. *Sonos, Inc. v. D&M Holdings Inc.*, No. 14-1330-WCB, 2017 WL 5633204, at *4 (D. Del. Nov. 21, 2017).

The evidence is not relevant to any other willfulness-related inquiry, either. For example, the evidence at trial does not establish a link between these 2010–2011 interactions and Google's alleged specific intent to infringe Singular's patents. Indeed, the conversations and the related NDA took place *six years* before the date of alleged first infringement in March 2017, and therefore this evidence is not probative of whether Google knew that its conduct amounted to infringement. *Bayer Healthcare LLC v. Baxalta Inc.*, 989 F.3d 964, 987 (Fed. Cir. 2021)

(willfulness finding requires the alleged infringer “had a specific intent to infringe at the time of the challenged conduct”); *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 579 U.S. 93, 105 (2016) (“Culpability is [] measured against the [actor’s knowledge] at the time of the challenged conduct.”). In short, Singular’s argument that the parties’ conversations about Dr. Bates’ intellectual property would support its willfulness claim has not borne out, and it should not be permitted to continue to draw this false connection for the jury.²

Second, even if the pre-issuance communications were relevant, any minimal probative value would be substantially outweighed by the risk of confusing the issues and unfair prejudice. *See* Fed. R. Evid. 403. If Singular were able to rely in its closing argument on these pre-issuance communications, it would invite the jury to find that Google willfully infringed Singular’s patents based on Google and Singular’s failed business discussions, or based on speculation as to whether Google violated the parties’ 2010 NDA. Neither issue is relevant to whether Google willfully infringed the asserted patents, and therefore exemplifies the sort of “unfair prejudice” that justifies exclusion. *See* Fed. R. Evid. 403 advisory committee’s note to 1972 Proposed Rules (defining unfair prejudice as “an undue tendency to suggest decision on an improper basis”). This concern is justified given Singular’s decision to emphasize the parties’ interactions from more than a decade ago, rather than focusing on whether the claims have been infringed. Singular devoted the vast majority of its opening statement, for example, to cataloging Dr. Bates’ conversations with Google, rather than explaining how Google allegedly infringes the asserted claims. *See* Day 2

² The Court explained that it admitted evidence and testimony about the parties’ 2010–2011 discussions of IP over Google’s objection to “show[] the development of the relationship” between the parties and provide “context.” Day 2 Trial Tr. at 18:10–11. That purpose has already been achieved through Singular’s explanation in its opening, and Dr. Bates’ testimony. Singular should not be permitted to refer to this evidence again in its closing argument, linking the evidence to its willfulness claim, to which it bears no relationship.

Trial Tr. at 39:10–40:23 (discussing infringement for two minutes).

Singular’s questioning of Dr. Bates further highlights the potential for juror confusion: following Dr. Bates’ discussion of the parties’ 2010 NDA, Singular’s counsel asked Dr. Bates whether, through the agreement, “Singular [gave] up any patent rights,” an issue about which there is no dispute. Day 2 Trial Tr. at 126:16–17. Allowing Singular to continue to mention the 2010 NDA will only further promote the incorrect impression that the jurors need to assess its terms to determine infringement, or otherwise determine whether Google somehow made misrepresentations to Singular in 2010–2011, when, in fact, none of these issues have any relevance to the case. *Id.*

II. SINGULAR SHOULD NOT BE PERMITTED TO SUGGEST IN ITS CLOSING THAT DR. BATES INVENTED *BFLOAT16* OR THAT THE USE OF *BFLOAT16*, BY ITSELF, INFRINGES.

Singular should not be permitted to suggest in its closing that Dr. Bates invented *bfloat16* or that the use of *bfloat16*, by itself, infringes the asserted claims. The parties stipulated prior to trial that neither party would “present evidence or argument that Dr. Bates invented the number format *bfloat16*,” or that “*bfloat16* by itself practices the asserted claims.” Dkt. No. 614. Despite the parties’ agreement, Singular has come perilously close to suggesting during the trial both that Dr. Bates invented *bfloat16*, and that Google’s use of *bfloat16* amounts to infringement. For example, during Dr. Dean’s examination, Singular attempted to equate Dr. Bates’ invention with *bfloat16*, by questioning Dr. Dean about the timing of his conception of *bfloat16* in a manner suggesting that because he had previously seen Dr. Bates’s slides, the idea for *bfloat16* must have come from Dr. Bates:

Q. All right. So you're telling us that you saw these slides in 2012, sent two emails about them before you came up with *bfloat16*, correct?

A. Yes.

Day 4 Trial Tr. at 48:6–9.

Q. And, again, if we look at Exhibit 833 on page 13, the slide deck that he showed to you in 2013, he also talked about deep learning, promising domains. Deep learning. If we could highlight that. So *he's disclosing to you exactly what you're using the TPUs* for, correct?

A. Yes, TPUs – . . . A. TPUs are used for machine learning, yes.

Q. He's disclosing to you *exactly what bfloat16 is used for in the TPUs*, correct?

A. I mean, bfloat16 is a number format.

Q. That's used in the TPUs?

A. Yes.

Day 4 Trial Tr. at 53:14–54:10 (emphasis added).

Q. And the team did put bfloat16 into the TPU?

A. Yes.

Q. And they put it into the TPU after you spoke to Dr. Bates?

A. Sure, yes.

Q. And you came up with bfloat16 after you had seen Dr. Bates' presentation in 2012, correct?

. . .

A. Sorry, yes.

Id. at 64:2–21; *see also* Day 4 Trial Tr. at 50:9–15. This line of questions was consistent with arguments made in Singular's opening, where Singular presented the jury with a timeline stating that Dr. Dean “claimed ‘invention’ of bfloat16” shortly after reviewing Dr. Bates’ slides—with scare quotes intended to imply that Dr. Dean did not, in fact, invent bfloat16, and that perhaps Dr. Bates was the true inventor.

Through this line of questioning and argument, Singular seeks to convince jurors to infer that Dr. Bates invented the concept of *bfloat16*, and that *bfloat16* infringes Singular’s patents. Permitting that tactic to continue in closing would create an end-run around the parties’ stipulation

and would prejudice Google. Indeed, this implication misrepresents the claimed invention, lowers the standard for a finding of infringement, and is contrary to the parties' explicit agreement prior to trial. *See* Dkt. No. 614. Accordingly, the Court should make clear that Singular is not permitted to suggest in its closing that Dr. Bates invented *bfloat16* or that *bfloat16* alone infringes the asserted patents.

Respectfully submitted,

Dated: January 22, 2024

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LOCAL RULE 7.1(A)(2) CERTIFICATION

Pursuant to Local Rule 7.1(a)(2), I certify that, on January 22, 2024, counsel for Defendant Google LLC conferred with counsel for Plaintiff Singular Computing LLC to resolve the issues presented in this motion, but, after a good faith attempt to reach agreement, the parties were unable to do so.

/s/ Nathan R. Speed

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CERTIFICATE OF SERVICE

I certify that this document is being filed through the Court's electronic filing system, which serves counsel for other parties who are registered participants as identified on the Notice of Electronic Filing (NEF). Any counsel for other parties who are not registered participants are being served by first class mail on the date of electronic filing.

/s/ Nathan R. Speed

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